

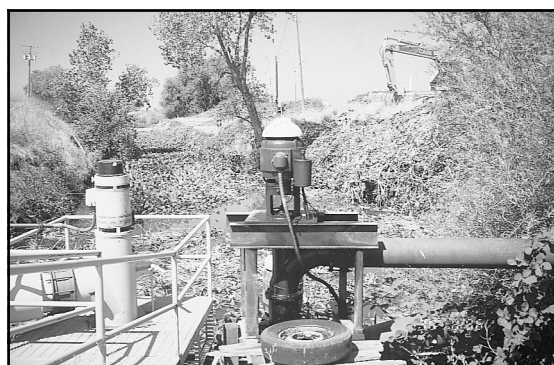
## **AQUATIC WEED CONTROL PROGRAMS**

### ***Water Hyacinth Control***

Introduced to California more than 100 years ago, the water hyacinth is a deceptively attractive plant, with shiny green leaves and delicately transparent lavender flowers. However, this extremely prolific aquatic weed can quickly amass into a dense floating mat of vegetation. With few natural enemies, it grows faster in warm weather than any other known plant.

By the early 1980's, severe infestations of the rapidly growing, floating aquatic plant had created safety hazards for boaters, clogging navigation channels and marinas, and agricultural irrigation systems. The Delta aquatic habitat was also compromised by the large, floating hyacinth mats, which greatly decreased the amount of dissolved oxygen in the water, replaced native plants, and deposited silt and organic matter at several times the normal rate.

State legislation enacted in 1982 designated the Department of Boating and Waterways as the lead agency for the control of water hyacinth in the Sacramento-San Joaquin Delta, its tributaries and the Suisun Marsh. The initial control plan utilized both short- and long-term methods, involving chemical, mechanical and biological control measures. The primary and most successful control measure is chemical spraying.



At the outset of the program, an oversight task force was formed to assist the Department in formulating, conducting, and monitoring the chemical control segment. The task force, which annually establishes the parameters of the program, is comprised of agencies including:

U.S. Department of Agriculture - Agricultural Research Service

U.S. Department of the Interior - Bureau of Reclamation

California Department of Food and Agriculture

California Department of Fish and Game

California Department of Health Services

California Department of Pesticide Regulation

California Department of Water Resources

State Water Resources Control Board

Central Valley Regional Water Quality Control Board

Contra Costa County Agriculture Commissioner

Fresno County Agriculture Commissioner

Madera County Agriculture Commissioner

Merced County Agriculture Commissioner

Sacramento County Agriculture Commissioner

San Joaquin County Agriculture Commissioner

Solano County Agriculture Commissioner

Stanislaus County Agriculture Commissioner

San Joaquin Water Exchange

Delta-Mendota Water Authority

Delta Citizens

Delta Marina Owners

Cooperating agencies developed the original program and, through annual infestation reviews and data monitoring, adjust the current program. The Department has practiced an adaptive management approach from the start, to better evaluate and refine the program. The Department is developing a performance measure of low biomass carryover, against which aerial photographic estimates and ground-measured data can be compared to determine the program's success at specific sites over time.

In terms of achieving maintenance control of water hyacinth in the Delta, the 1998 and 1999 seasons may be considered successful: fewer acres were treated and the estimated biomass carryover was less than in the previous two years. However, for a portion of 1999 and 2000, the Water Hyacinth Control Program was impacted by a lawsuit, and operations were suspended.

### ***Egeria Densa Control***

Introduced to California more than 30 years ago, *Egeria densa* (Brazilian elodea) is a submerged aquatic plant that forms dense mats of vegetation that obstruct navigation and recreation, slow water flows, plug agricultural irrigation pumps, and disrupt the natural ecosystem of the Sacramento-San Joaquin Delta. *Egeria* is a popular plant used in aquariums, from which it may have been introduced to the waterways.

Assembly Bill 2193, enacted in January of 1997, enabled the Department to create the *Egeria Densa* Control Program for the Delta. Cal Boating assembled a task force of cooperating agencies and stakeholders to provide assistance in developing an *Egeria Densa* Control Plan, using an adaptive management strategy with a strong scientific base. The Department prepared an Environmental Impact Report (EIR) to satisfy the California Environmental Quality Act (CEQA).



Cal Boating conducted research on mechanical and chemical control methods at various sites throughout the Delta, gathering the necessary information to complete the EIR. The overall objective of the research was to make sure monitoring activities sufficiently fulfilled the EIR requirements and answer questions about potential environmental impacts.

After completing consultations with regulatory agencies, the Department will determine the most feasible *Egeria* control alternative, to meet both the requirements of the CEQA process and the needs of those who live, work and play in the Delta.

### ***Egeria Densa Task Force Members***

U.S. Department of Agriculture, Agricultural Research Service  
 U.S. Department of the Interior, Bureau of Reclamation  
 U.S. Department of Interior, Fish and Wildlife Service  
 California Department of Fish and Game  
 California Department of Pesticide Regulation  
 California Department of Water Resources  
 State Water Resources Control Board  
 Central Valley Regional Water Quality Control Board  
 Contra Costa County Agriculture Commissioner  
 Sacramento County Agriculture Commissioner  
 San Joaquin County Agriculture Commissioner  
 Delta Citizens  
 Delta Marina Owners